

31190

The aryl trifluoromonohydrides ...

S/079/61/031/012/004/011  
D228/D301

conversions. Thus, II was almost completely converted into n-chlorophenyl phosphinic acid on the addition of water, while n-chlorophenyl thiophosphinic acid (III) was obtained with a 96% yield by heating II and S to a temperature of 140-150°. The chlorination of I gave mixed phosphorous tetrachlorofluorides which were identified by means of their hydrolysis to the corresponding phenyl phosphinic acids (yield 87%). The authors give details for synthesizing three fluoroanhydrides of n-chlorophenyl monothiophosphinate from III, alcohol and  $\text{Et}_3\text{N}:\text{n-ClC}_6\text{H}_4\text{PS(OMe)F}$  - yield 48%;  $\text{n-ClC}_6\text{H}_4\text{PS(OEt)F}$  - yield 80%; and  $\text{n-ClC}_6\text{H}_4\text{PS(Oiso-Pr)F}$  - yield 65%. These fluoroanhydrides which do not corrode glass in the absence of moisture and which possess active contact-insecticide properties, are readily soluble in standard organic solvents, insoluble in water, and slowly hydrolyzed at 20°. There are 2 tables and 8 references: 4 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: J. Van Wazer et al, J. Amer. Chem. Soc. 78, 5715, (1956); A. Burg et al, ibid, 80, 3198 (1958);

Card 2/3

31190

S/079/61/031/012/004/011  
D228/D301

The aryl trifluoromonohydrides ...

and G. Kosolapoff, Organophosphorous compounds; 147, (1950).

ASSOCIATION: Institut organicheskoy khimii, Akademii nauk Ukrain-  
skoy SSR (Institute of Organic Chemistry, Academy of  
Sciences, Ukrainian SSR)

SUBMITTED: January 6, 1961

Card 3/3

KIRSANOV, A.V. [Kirsanov, O.V.], akademik; SHTEPANEX, A.S.;  
SHEVCHENKO, V.I.

Reaction of diphenyl phosphorus trichloride and diphenyl  
phosphorus dichloride with urethan. Dop. AN URSR no.1:63-  
65 '62. (MIRA 15:2)

1. Institut organicheskoy khimii AN USSR. 2. AN USSR (for  
Kirsanov.

(Phosphorus organic compounds)  
(Carbamic acid)

SHEVCHENKO, V.I.; SHTEPANEK, A.S.; KIRSANOV, A.V.

3-Aryloarbamidophenylphosphinic acids and their chlorides. Zhur.  
ob khim. 32 no.1:150-153 Ja '62. (MIRA 15:2)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphinic chloride)

DERKACH, G.I.; DREGVAL', G.F.; KIRSANOV, A.V.

Trianilidophosphazo-N-arylsulfonylaminobenzoyls and N'-dianilidophosphinyl-N'-arylsulfonylbenzamidines. Zhur. ob. khim. 32 no.1:154-159  
Ja '62. (MIRA 15:2)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphorus organic compounds)

DERKACH, G.I.; SHOKOL, V.A.; SAMARAY, L.I.; KIRSANOV, A.V.

New method of preparing trichlorophosphazocyls. Zhur. ob. khim.  
32 no.1:159-160 Ja '62. (MIRA 15:2)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphazo compounds)

LEVCHENKO, Ye.S.; KIRSANOV, A.V.

Sulfur N-arylsulfonyliminodioxide. Zhur. ob. khim. 32 no.1:161-165  
Ja '62. (MIRA 15:2)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Sulfur dioxide) (Sulfur organic compounds)

SHOKOL, V.A.; DERKACH, G.I.; KIRSANOV, A.V.

Phenyldichloro- and diphenylchlorophosphazo-dichloro-and  
trichloroacetyls and their derivatives. Zhur. ob. khim. 32 no.1:  
166-171 Ja '62. (MIRA 15:2)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphazo compounds)



DERKACH, G.I.; LEPESA, A.M.; KIRSANOV, A.V.

Alkyl esters of N-dialkoxyposphinyloiminocarboxylic acids.  
Zhur. ob. khim. 32 no.1:171-174 Ja '62. (MIRA 15:2)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphinic acid)

KIRSANOV, A.V., [Kirsanov, O.V.] akademik; LEPESA, A.M.; DERKACH, G.I.  
[Derkach, H.I.]

Ethers of monoanilides of aroylamidophosphoric acids. Dop. AN  
URSR no.3:384-386 '62. (MIRA 15:5)

1. Institut organicheskoy khimii AN USSR. 2. AN USSR (for Kirsanov).  
(Phosphoramidic acid) (Ethers)

DERKACH, G.I.; GUBNITSKAYA, Ye.S.; SHOKOL, V.A.; KIRSANOV, A.V.

Triaroxyposphazacyls. Part 2. Zhur.ob.khim. 32 no.4:1201-  
1207 Ap '62. (MIRA 15'4)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphorus organic compounds) (Esters)

LEVCHENKO, Ye.S.; DERKACH, N.Ya.; KIRSANOV, A.V.

N-arylsulfonylareniminosulfenamides. Zhur.ob.khim. 32 no.4:  
1208-1212 Ap '62. (MIRA 15'4)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Sulfonamides)

LEVCHENKO, Ye.S.; DERKACH, N.Ya.; KIRSANOV, A.V.

Reaction of diaryldisulfonyl imides with phosphorus pentachloride.  
Zhur.ob.khim. 32 no.4:1212-1218 Ap '62. (MIRA 15:4)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Sulfonyl group) (Phosphorus chlorides)

DERKACH, G.I.; GUBNITSKAYA, Ye.S.; SHOKOL, V.A.; KIRSANOV, A.V.

Phenyldichloro-, diphenylchloro-, and triphenylphosphazo acyls.  
Zhur.ob.khim. 32 no.6:1874-1878 Je '62. (MIRA 15:6)

1. Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR.  
(Phosphazo compounds)

DERKACH, G.I.; DREGVAL, G.F.; KIRSANOV, A.V.

Derivatives of phosphorylated amidines. Zhur.ob.khim. 32 no.6:1878-  
1882 Je '62. (MIRA 15:6)

1. Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR.  
(Amidine) (Phosphorus organic compounds)

DERKACH, G.I.; KIRSANOV, A.V.

Phosphorylated amidines. Zhur.ob.khim. 32 no.7:2254-2256 J1 '62.  
(MIRA 15:7)

1. Institut organicheskoy khimii AN USSR.  
(Amidines) (Phosphorous acid)



LEVCHENKO, Ye.S.; KIRSANOV, A.V.

Sulfur bisarylsulfonyliminodioxide. Zhur.ob.khim. 32 no.7:2256-  
2262 J1 '62. (MIRA 15:7)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Sulfur organic compounds)

LEVCHENKO, YE.S., PIVEN, YU.V., KIRSANOV, A.V.

Reaction of phosphorus diiodide with alkyl halides.

*Khimiya i Primeneniye Fosfororganicheskikh Soedineniy (Chemistry and application of organophosphorus compounds) A. YE. A. 1962, 64.*  
Publ. by Kazan Affil. Acad. Sci. USSR, Moscow 1962, 638 pp.

Collection of complete papers presented at the 1962 Kazan Conference on Chemistry of Organophosphorus Compounds.

DERKACH, G.I.; ZHURAVLEVA, L.P.; KIRSANOV, A.V.

N-dichlorophosphinyl-N'-aryl-C-chloroformamidines. Zhur.ob.khim.  
32 no.3:879-881 Mr '62. (MIRA 15:3)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Formamidine) (Phosphinic chloride)

LEVCHENKO, Ye.S.; KOZLOV, E.S.; KIRSANOV, A.V.

Esters of N-carbethoxyareneiminosulfonic acids. Zhur.ob.khim.  
32 no.3:882-886 Mr '62. (MIRA 15:3)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Sulfonic acids)

KIRSANOV, A.V.; KIRSANOVA, N.A.

N-arylsulfonylethylene- and hexamethylenediamines. Zhur.ob.khim,  
32 no.3:887-892 Mr '62. (MIRA 15:3)

1. Institut organicheskoy khimii i Institut monomerov i polimerov  
AN Ukrainskoy SSR.

(Ethylenediamine) (Hexanediamine)

BELYAKOVA, L.D.; KISELEV, A.V.

Adsorption of nonpolar molecules having different electronic  
shell structure on the adsorbents of different nature. Report  
No.1: Adsorption of benzene and n.hexane on barium sulfate.  
Izv.AN SSSR.Otd.khim.nauk no.6:969-974 '62. (MIRA 15:8)

1. Institut fizicheskoy khimii AN SSSR i Moskovskiy gosudarstvennyy  
universitet im. M.V.Lomonosova.  
(Benzene) (Hexane) (Adsorption)

DZHIGIT, O.M.; ZHDANOV, S.P.; KISELEV, A.V.; MUTTIK, G.G.

Differential heats of adsorption of n-pentane and diethyl ether  
by porous crystals of zeolite of type 5A. Zhur. fiz. khim. 36  
no.4:919-920 Ap '62. (MIRA 15:6)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova,  
khimicheskoy fakul'tet i Institut khimii silikato AN SSSR.  
(Heat of adsorption) (Pentane) (Ethyl ether)  
(Zeolite crystals)

ZHDANOV, S.P.; KALMANOVSKIY, V.I.; KISELEV, A.V.; FIKS, M.M.; YASHIN, Ya.I.

Use of porous glasses as adsorbents in gas chromatography.  
Zhur.fiz.khim. 36 no.5:1118-1120 My '62. (MIRA 15:8)

1. Institut khimii silikatov AN SSSR; Opytno-konstruktorskoye  
byuro avtomatiki Gosudarstvennogo komiteta khimicheskoy pro-  
myshlennosti pri Sovets Ministrov SSSR, Dzerzhinskiy filial i  
Moskovskiy gosudarstvennyy universitet imeni Lomonosova,  
khimicheskiy fakul'tet.

(Glass) (Adsorbents) (Gas chromatography)



AKSHINSKAYA, N.V.; KISELEV, A.V.; NIKITIN, Yu.S.; PETROVA, R.S.; CHUYKINA,  
V.K.; SHCHERBAKOVA, K.D.

Geometric and chemical modification of silica gel for the  
adsorption separation of hydrocarbons by gas chromatography.  
Zhur.fiz.khim. 36 no.5:1121-1123 My '62. (MIRA 15:8)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.  
(Silica) (Hydrocarbons) (Gas chromatography)

ZHMUROVA, I.N.; KIRSANOV, A.V.

Mechanism of phosphazo reaction. Zhur.ob.khim. 32 no.8:2576-2580  
Ag '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphazo compounds)

IVANOVA, Zh.M.; KIRSANOV, A.V.

Phosphorus aryltrifluoromonochlorides and N,N-disubstituted  
phosphorus aryltrifluoroamides. Zhur.ob.khim. 32 no.8:2592-2595  
Ag '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphorus organic compounds)

ZHMUROVA, I.N.; KISILENKO, A.A.; KIRSANOV, A.V.

Infrared spectra of monomer and dimer trichlorophosphazo aryls  
and phenyldichlorophosphazo aryls. Zhur.~~op~~.khim. 32 no.8:2580-  
2585 Ag '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphazo compounds--Spectra)

LEVCHENKO, Ye.S.; KOZLOV, E.S.; KIRSANOV, A.V.

Phenyl esters of arenimino sulfonic acids. Zhur.ob.khim. 32  
no.8:2585-2592 Ag '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Sulfonic acid) (Esters)

SHEVCHENKO, V.I.; SHTEPANUK, A.S.; KIRSANOV, A.V.

Esters of diphenylchloro- and triphenylphosphazo carbonic acid.  
Zhur.ob.khim. 32 no. 1:2595-2600 Ag '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphazo compounds) (Carbonic acid) (Esters)

DERKACH, G.I.; LEPESA, A.M.; KIRSANOV, A.V.

Derivatives of monoanilides of aroylamidophosphoric acids. Zhur.-  
ob.khim. 32 no.8:2600-2606 Ag '62. (MIRA 15:9)

1. Institit organicheskoy khimii AN Ukrainskoy SSR.  
(Phosphoramidic acid)

DERKACH, G.I.; PROTSENKO, L.D.; ZHURAVLEVA, L.P.; KIRSANOV, A.V.

N-diethylenediamidophosphinyl-N'-ethylene-N"-arylguanidines.  
Zhur.ob.khim. 32 no.9:2992-2994 S '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN UkrSSR.  
(Guanidine) (Phosphorylation)



SHEVCHENKO, V.I.; BODNARCHUK, N.D.; KIRSANOV, A.V.

Phosphorylation of malonic acid esters. Zhur.ob.khim. 32  
no.9:2994-3001 S '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN UkrSSR.  
(Malonic acid) (Phosphorylation)

DERKACH, G.I.; DREGVAL', G.F.; KIRSANOV, A.V.

N-dichlorophosphinyl-N'- $\alpha$ -chlorobenzalarenamidines. Zhur.ob.khim.  
32 no.9:3002-3007 S '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN UkrSSR.  
(Benzamidine) (Phosphorus organic compounds)

KIRSANOV, A.V., akademik; LOBOV, V.P., kand.biolog.nauk

Effective control measures against the sugar beet weevil.  
Vest. AN SSSR 32 no.11:95-96 N '62. (MIRA 15:11)

1. AN UkrSSR (for Kirsanov).  
(Ukraine--Sugar beets--Diseases and pests)  
(Ukraine--Weevils) (Insecticides)

ZHURAVLEVA, L.P.; KIRSANOV, A.V.

Phosphorylation of aminoarenesulfonamides. Zhur.ob.khim.  
32 no.11:3752-3759 N '62. (MIRA 15:11)

1. Institut organicheskoy khimii AN UkrSSR.  
(Sulfonamides) (Phosphorylation)

DERKACH, G.I.; SAMARAY, L.I.; SHTEPANUK, A.S.; KIRSANOV, A.V.

Alkyl esters of phosphazocarbonic acid. Zhur.ob.khim.  
32 no.11:3759-3761 N '62. (MIRA 15:11)

1. Institut organicheskoy khimii AN UkrSSR.  
(Phosphazo compounds)  
(Carbonic acid)

DERKACH, G.I.; SAMARAY, L.I.; KIRSANOV, A.V.

Reaction of iminoesters with phosphorus pentachloride.

Zhur.ob.khim. 32 no.11:3761-3764 N '62. (MIRA 15:11)

1. Institut organicheskoy khimii AN UkrSSR.  
(Esters)  
(Phosphorus chloride)

IVASHCHENKO, Ya.N.; MOSHCHITSKIY, S.D.; KIRSANOV, A.V.

Alkyl aryl esters of oxalic acid. Zhur.ob.khim. 32  
no.11:3765-3768 N '62. (MIRA 15:11)  
(Oxalic acid)

SHEVCHENKO, V. I.; TKACH, V. P.; KIRSANOV, A. V.

Triallylhydroxyphosphazo sulfonyl aryls. Zhur. ob. khim. 32  
no.12:4047-4049 D '62. (MIRA 16:1)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.

(Phosphazo compounds) (Sulfonyl group)



S/079/63/033/001/010/023  
D205/D307

AUTHORS: Zhmurova, I. N. and Kirsanov, A. V.

TITLE: The acidolysis of monomeric and dimeric phenyldichlorophosphazopyryls

PERIODICAL: Zhurnal obshchey khimii, v. 33, no. 1, 1963, 182-188

TEXT: Compounds  $C_6H_5P(O)(NHA_r)Cl$  (I), where  $Ar=C_6H_5$ ,  $m-CH_3 \cdot C_6H_4$ ,  $p-CH_3 \cdot C_6H_4$ ,  $m-ClC_6H_4$ ,  $pCH_3OC_6H_4$  and  $p-EtOC_6H_4$  were prepared by monomerizing  $(ArN=PCl_2C_6H_5)_2$  by boiling with benzene, cooling the monomeric solution and treating it with acetic acid. The reactions could also be carried out without isolating the dimers prior to monomerization. Compounds of type I, where  $Ar=o-CH_3C_6H_4$ ,  $o-ClC_6H_4$ ,  $m-ClC_6H_4$ ,  $2,4-Cl_2C_6H_3$ ,  $2,4,6-Cl_3C_6H_2$ ,  $o-BrC_6H_4$ ,  $m-BrC_6H_4$ ,  $p-BrC_6H_4$ ,  $2,4-Br_2C_6H_3$ ,  $2,4,6-Br_3C_6H_2$ ,  $o-NO_2C_6H_4$ ,  $m-NO_2C_6H_4$ ,  $p-NO_2C_6H_4$ ,  $2,4-$

Card 1/2

The acidolysis of ...

S/079/63/033/001/010/023  
D205/D307

$(\text{NO}_2)_2\text{C}_6\text{H}_3$  and 2,6- $\text{Cl}_2$ -4- $\text{NO}_2\text{C}_6\text{H}_2$  were also made, by the acidolysis of monomeric phenyldichlorophosphazopyls with  $\text{CH}_3\text{COOH}$ , using benzene or  $\text{CCl}_4$  as solvent. The yields of compounds I varied between 57 and 97%. Polymeric anhydroaryliminophenylphosphinic acids  $[\text{ArNP}(\text{O})\text{C}_6\text{H}_5]_n$ , where  $\text{Ar}=\text{C}_6\text{H}_5$ , p- $\text{CH}_3\text{C}_6\text{H}_4$ , p- $\text{CH}_3\text{OC}_6\text{H}_4$ , and p- $\text{C}_2\text{H}_5\text{OC}_6\text{H}_4$  were obtained by the acidolysis of  $(\text{ArN}=\text{PCl}_2\text{C}_6\text{H}_5)_2$  without monomerization, with gentle heating over 5 - 6 hrs together with  $\text{CH}_3\text{COOH}$  in benzene solution, in 52 - 87% yields. There is 1 table.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR (Institute of Organic Chemistry of the Academy of Sciences of the Ukrainian SSR)

SUBMITTED: January 10, 1962

Card 2/2

SHEVCHENKO, V.I.; TKACH, V.P.; KIRSANOV, A.V.

Diallyl esters of arylsulfonylamidophosphoric acids. Zhur.ob.  
khim. 33 no.2:562-564 F '63. (MIRA 16:2)

1. Institut organicheskoy khimii AN UkrSSR.  
(Phosphoramidic acid)

LEVCHENKO, Ye.S.; KOZLOV, E.S.; KIRSANOV, A.V.

Amides of areniminosulfonic acids. Zhur.ob.khim. 33 no.2:565-  
571 F '63. (MIRA 16:2)

1. Institut organicheskoy khimii AN UkrSSR,  
(Sulfonamides)

FEDOROVA, G.K.; KIRSANOV, A.V.

Styryldialkyl phosphines and their oxides. Zhur.ob.khim.  
33 no.3:1011-1013 Mr '63. (MIRA 16:3)

1. Institut organicheskoy khimii AN UkrSSR.  
(Phosphine)  
(Phosphine oxide)

FESHCHENKO, N.G.; ALEKSEYEVA, T.I.; KIRSANOV, A.V.

Alkylation of phosphorus diiodide with higher alkyl  
iodides. Zhur.ob.khim. 33 no.3:1013-1014 Mr '63. (MIRA 16:3)

1. Institut organicheskoy khimii AN UkrSSR.  
(Phosphorus iodides)  
(Alkyl iodides)

ZEMUROVA, I.N.; KIRSANOV, A.V.

Diphenylchlorophosphano aryls. Zhur.ob.khim. 33  
no.3:1015-1017 Mr '63. (MIRA 16:3)

1. Institut organicheskoy khimii AN UkrSSR.  
(Phosphorus organic compounds)

SHEVCHENKO, V.I.; BONDARCHUK, N.D.; ~~MIR~~RSANOV, A.V.

Trichlorophosphazoperchlorovinyl and trichlorophosphazoperchloro-ethyl. Zhur.ob.khim. 33 no.4:1342-1345 Ap '63. (MIRA 16:5)

1. Institut organicheskiy khimii AN UkrSSR.  
(Phosphazo compounds)



LEVCHENKO, Ye.S.; BAL'ON, Ya.G.; KIRSANOV, A.V.

Condensation of sulfur N-aryl sulfonylmonoiminodioxides with  
dienes. Zhur. ob. khim. 33 no.5:1579-1584 My '63.

(MIRA 16:6)

1. Institut organicheskoy khimii AN UkrSSR.  
(Sulfonyl group) (Butadiene)  
(Condensation products)Chemistry))

DERKACH, G.I.; NARBUT, A.V.; KIRSANOV, A.V.

Reaction of phosphorus pentachloride with aryl ureas. Zhur.  
ob. khim. 33 no.5:1584-1587 My '63. (MIRA 16:6)

1. Institut organicheskoy khimii AN UkrSSR.  
(Phosphorus chlorides) (Urea)

SHEVCHENKO, V.I.; BODNARCHUK, N.D.; KIRSANOV, A.V.

Phosphorylation of primary nitriles. Zhur. ob. khim. 33 no.5:  
1591-1596 My '63. (MIRA 16:6)

1. Institut organicheskoy khimii AN UkrSSR.  
(Nitriles) (Phosphorylation)

LEVCHENKO, Ye.S.; SHEYNKMAN, I.E.; KIRSANOV, A.V.

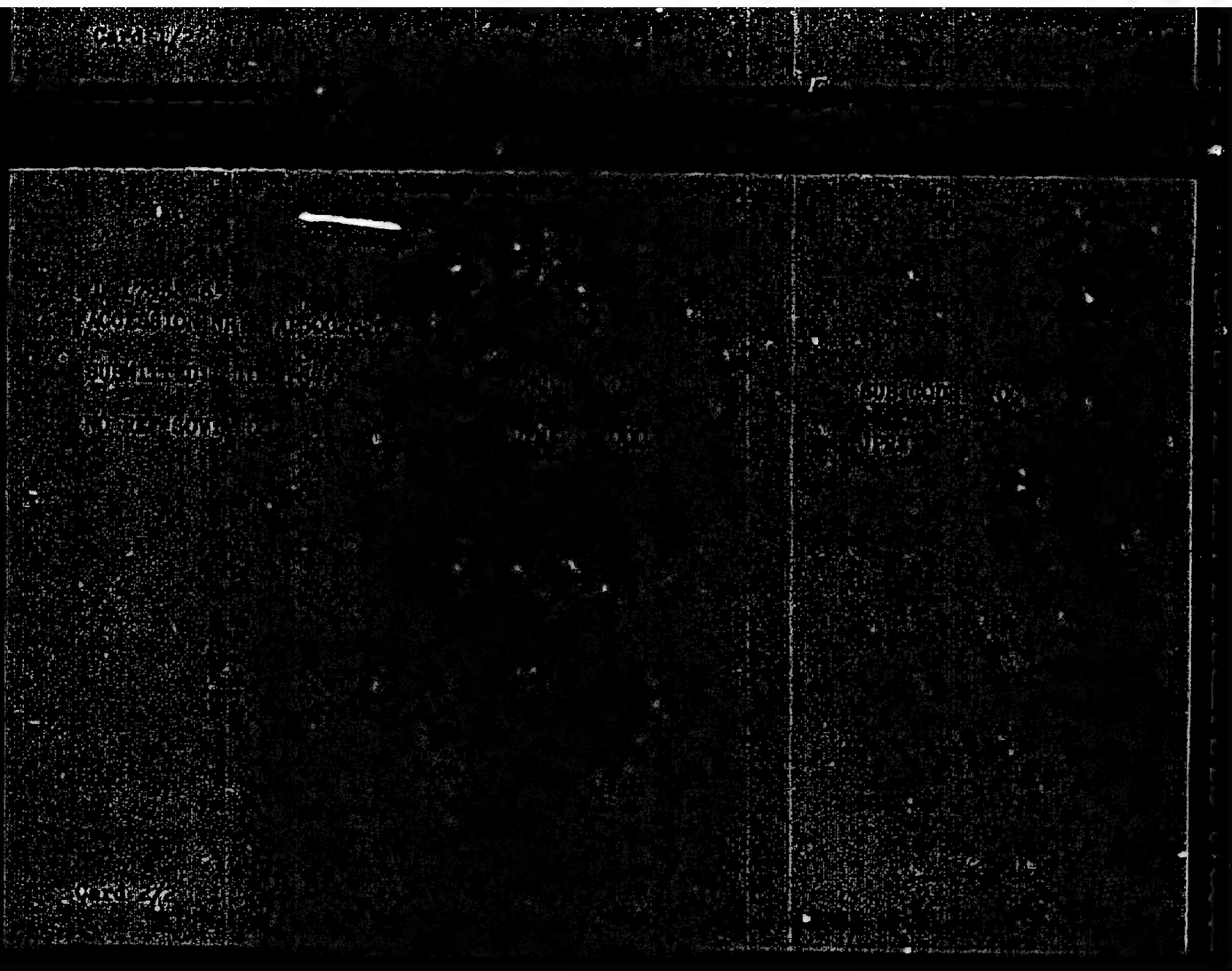
N-dichlorophosphinylalkanaminosulfonic acid chlorides. Zhur.  
ob.khim. 33 no.10:3315-3323 0 '63. (MIRA 16:11)

1. Institut organicheskoy khimii AN UkrSSR.

SHEVCHENKO, V.I.; TKACH, V.P.; KIRSANOV, A.V.

2,2',3,3'-Tetrabromodipropyl and 2,2'-dibromodiallyl esters of aryl-sulfonylamidophosphoric acids. Zhur.ob.khim. 34 no.2:624-627 P '64.

1. Institut organicheskoy khimii AN UkrSSR.



LEVCHENKO, Ye.S.; KIRSANOV, A.V.

Derivatives of sulfur bisimine dioxide. Zhur.org.khim. 1 no.2:3<sup>02</sup>-  
305 F '65. (MIRA 18:4)

1. Institut organicheskoy khimii AN UkrSSR.

ZHMUROVA, I.N.; DRACH, B.S.; KISSANOV, A.V.

Chlorination of hydrocarbon radicals of aliphatic trichloro-  
phosphazo compounds by phosphorus pentachloride. Ukr.khim.zhur.  
31 no.2:223-224 '65. (MIRA 18:4)

1. Institut organicheskoy khimii AN UkrSSR.



SHOKOL, V.A.; FEDOTOVA, L.I.; PROLOVA, A.N.; KIRSANOV, A.V.

Higher dialkyl esters of arylsulfonylamidophosphoric acids.

Zhur. ob. khim. 35 no.3:534-544 Mr '65.

(MIRA 18:4)

1. Institut organicheskoy khimii AN UkrSSR.

BODNARCHUK, N.D.; SHEVCHENKO, V.I.; KIRSANOV, A.V.

Reaction of phosphorus pentachloride with the diisobutyl ester of  
malonic acid. Zhur. ob. khim. 35 no.4:713-715 Ap '65.

(MIRA 18:5)

1. Institut organicheskoy khimii AN UkrSSR.

SHEVCHENKO, V.I.; TKACH, V.P.; KIRSANOV, A.V.

Phenyldialloxyphosphazo sulfonyl aryle. Zhur. ob. khim. 35  
no.6:992-996 Ja '65. (MIRA 18:6)

1. Institut organicheskoy khimii AN UkrSSR.

ZHURAVIEVA, L.P.; BUTOVA, G.L.; KIRSANOV, A.V.

Palmitates and stearates of trimethylphosphine oxide. Zhur.  
ob. khim. 35 no.6:996-998 Ja '65. (MIRA 18:6)

1. Institut organicheskoy kh'mii AN UkrSSR.

ZHURAVLEVA, L.P.; GRINYUK, M.A.; KIRSANOV, A.V.

Derivatives of phosphamic acid. Zhur. ob. khim. 35 no.6:998-  
1001 Je '65. (MIRA 18:6)

1. Institut organicheskoy khimii AN UkrSSR.

ZHMUROVA, I.N.; DRACH, B.S.; KIPSANOV, A.V.

Hydrolysis and acidolysis of trichlorophosphazene alkyls and  
trichlorophosphazene- $\alpha$ -carboxyl alkyl chlorides. Zhur. ob.  
khim. 35 no.6:1018-1022 Je '65. (MIRA 18:6)

1. Institut organicheskoy khimii AN UkrSSR.

SHTEPANUK, A.S.; SHEVCHENKO, V.I.; KIRSANOV, A.V.

N-carbalkoxyamidophenylph-- acids. Zhur. ob. khim. 35  
no.6:1023-1025 Je '65. (MIRA 18:6)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.

PELOFOVA, G.K., KIRSANOV, A.V.

Derivatives of  $\alpha$ -alkoxyvinylphosphonic acids. Zhur. ob.  
khim. 35 no.8:1483-1487 Aug '65. (MIRA 18:9)

1. Institut organicheskoy khimii AN UkrSSR.



SHEVCHENKO, V.I.; PINCHUK, A.M.; KIRSANOV, A.V.

Mixed triarylphosphazo sulfonyl aryls. Zhur. ob. khim. 35  
no.8:1488-1491 Ag '65. (MIRA 18:8)

1. Institut organicheskoy khimii AN UkrSSR.

SHEVCHENKO, V.I.; KORNUA, P.P.; KIRSANOV, A.V.

Phosphorylation of l-cyanocarboxylic acids. Zhur. ob. khim. 35  
no.9:1598-1602 S '65. (MIRA 18:10)

1. Institut organicheskoy khimii AN UkrSSR.

IVANOVA, Zh.M.; LEVCHENKO, Ye.S.; KIRSANOV, A.V.

Alkoxy and aroxydihalophosphazo sulfonyl aryls. Zhur. ob. khim.  
no. 9:1607-1612 S '65. (MIRA 18:10)

1. Institut organicheskoy khimii AN UkrSSR.

ACC NR: AM5027772

Monograph

UR/

Derkach, Grigoriy Illarionovich; Zhmurova, Irina Nikolayevna; Kirsanov, Aleksandr Vasil'yevich; Shevchenko, Veniamin Isaakovich; Shtepanek, Alla Stanislavovna

Phosphazo compounds (Fosfazosoyedineniya) Kiev, Izd-vo "Naukova dumka," 1965. 283 p. illus., biblio. (At head of title: Akademiya nauk Ukrainskoy SSR. Institut organicheskoy khimii) 2000 copies printed.

TOPIC TAGS: organic phosphorus compound, nitrogen compound, organic azo compound

PURPOSE AND COVERAGE: The introduction contains a review of recent research in the field and a discussion of the problems connected with inconsistencies in terminology. The nomenclature employed is that first proposed by A. Mikhaelis. The book deals with data on the chemistry of phosphazo compounds, published in the scientific press up to 1 January 1964, and presents lists of the phosphazo compounds that are known at the present time. It is intended for scientists, industrial workers, teachers, and students interested in modern progress in organic chemistry, especially those working in the field of phosphor-organic compounds. Each chapter deals with a different class of compounds, for which the authors give the method of preparation, the chemical properties, a list of compounds, and an appropriate bibliography.

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UDC: 5471

ACC NR: AMS027772

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SUD CODE: 07/ SUBM DATE: 10Apr65/ ORIG REF: 222/ OTH REF: 319

Cor. 2/2

L 04849-67 EWP(j)/EWT(m) RM/JW

ACC NR: AP7000242

SOURCE CODE: UR/0079/66/036/004/0730/0735

AUTHOR: Shevchenko, V. I.; Kornuta, P. P.; Bodnarchuk, N. D.; Kirsanov, A. V. 25  
B

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

"Phosphorylation of Malonodinitrile by Phosphorus Pentachloride"

Moscow, Zhurnal Obshchey Khimii, Vol 36, No 4, 1966, pp 730-735

Abstract: Malonodinitrile and phosphorus pentachloride, regardless of the quantitative ratio, react at 80° and above to form acyclic trichlorophosphazo-1-chloro-, and 1,2-dichloro-2-cyano-vinyls. At 20-25°, they yield cyclic 1,1,3,5-tetrachloro-, and 1,1,3,4,5-pentachloro-1,2,6-phosphadiazines, isomeric to the acyclic phosphazo-compounds. The latter are readily converted to cyclic isomers under the action of hydrogen chloride at 20-25°. The structures of the reaction products were confirmed by infrared spectra. The trichlorophosphazocyanovinyls are viscous light yellow liquids, which are readily hydrolyzed by atmospheric moisture, react vigorously with water, alcohols, and amines, undergo acidolysis, and exhibit typical properties of unsaturated compounds, such as the addition of chlorine and bromine. The phosphadiazines are colorless crystalline substances, which are slowly hydrolyzed by atmospheric moisture and react readily with water, alcohols, and organic

Card 1/2

UDC: 547.461.3

0923 0782

I 04849-67

ACC NR: AP7000242

acids. Orig. art. has: 1 figure. [JPRS: 37,177]

TOPIC TAGS: phosphorylation, phosphorus chloride, organic nitrile compound

SUB CODE: 07 / SUBM DATE: 19 Mar 63 / ORIG REF: 006 / OTH REF: 002

Card 2/2

1-29288-66 -ENP(J)/ENT(6) RM

ACC NR: AP6019325

SOURCE CODE: UR/0079/65/035/006/1483/1487

AUTHOR: Fedorova, G. K.; Kirsanov, A. V.

ORG: Institute of Organic Chemistry, AN USSR (Institut organicheskoy khimii AN USSR)

TITLE: Derivatives of bis-beta-alkoxyvinylphosphinic acids

SOURCE: Zhurnal obshchey khimii, v. 35, no. 8, 1965, 1483-1487

TOPIC TAGS: phosphorylation, phosphorus chloride, phosphinic acid, ether

ABSTRACT: On phosphorylation of alkylvinyl ethers with  $\text{PCl}_5$  applied in the molar ratio 1:4, bis-beta-alkoxyvinylphosphorus tri-chlorides (I) formed:  $4\text{ROCH}=\text{CH}_2 + \text{PCl}_5 \rightarrow (\text{ROCH}=\text{CH})_2\text{PCl}_3$  (I) +  $2\text{HOCHEClMe}$ . I (R = Et), obtained in this manner with a yield of 70%, had a m. p. of 70-75°. I (R = Bu) was an oily substance (yield 63%) which could not be isolated in a pure state. Upon hydrolysis of I (R = Et, Bu) with the calculated amount of water, the chlorides of phosphinic acids (II) formed:  $(\text{ROCH}=\text{CH})_2\text{PCl}_3 + \text{H}_2\text{O} \rightarrow 2\text{HCl} + (\text{ROCH}=\text{CH})_2\text{POCl}$  (II). They were colorless, high-boiling, oily liquids which dissolved in organic solvents. By treating acid chlorides II with alcohols  $\text{R}'\text{OH}$ , esters  $(\text{ROCH}=\text{CH})_2\text{POOR}'$  (III) were prepared. The following esters III were obtained;

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UDC: 546.185.557.361



29288-46

ACC NR. AP6019325

III (R = Et, R' = Me); III (R = R' = Et); III (R = Et, R' = Pr);  
 III (R = Et, R' = Bu); III (R = Et, R' = CH<sub>2</sub>=CHCH<sub>2</sub>); III (R = Et,  
 R' = Ph); III (R = Et, R' = C<sub>7</sub>H<sub>15</sub>); III (R = Bu, R' = Me); III  
 (R = Bu, R' = Et); III (R = Bu, R' = Pr); III (R = R' = Bu).  
 Esters III were colorless liquids with a faint odor which dissolved  
 in organic solvents and were soluble with difficulty in water.  
 They added readily four atoms of Br at the unsaturated bonds - e.g.  
 III (R = Et, R' = Me) was converted by the addition of four atoms  
 of Br in a CCl<sub>4</sub> solution into a dark oil which fumed in the air,  
 could not be distilled without decomposition, and was soluble in  
 organic solvents. Orig. art. has: 4 formulas and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 08Jul64 / ORIG REF: 004

Card 2/2

L 29287-66 - ENP(1)/ENK(m)/I RM

ACC NR: AP6019327

SOURCE CODE: UR/0079/65/035/008/1488/1491

AUTHOR: Shevchenko, V. I.; Pinchuk, A. M.; Kirsanov, A. V.

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR) B

TITLE: Mixed triarylphosphazosulfonylaryls

SOURCE: Zhurnal obshchey khimii, v. 35, no. 8, 1965, 1488-1491

TOPIC TAGS: organic synthetic process, chromatography, chlorinated organic compound, organic sulfur compound, organic azo compound, organic phosphorus compound

ABSTRACT: Mixed triarylphosphazosulfonylaryls  $\text{ArSO}_2\text{N}=\text{PAR}'\text{Ar}''\text{Ar}'''$  (I) were prepared by the following five reactions:



Card 1/3

UDC: 547.558.1

L 29287-66 -

ACC NR. AP6019327

Compounds prepared by reactions of different types were identical. The following compounds were synthesized by the reactions indicated:

I (Ar = Ar' = Ar'' = Ph, Ar''' = p-MeC<sub>6</sub>H<sub>4</sub>); I (Ar = Ph, Ar' = Ar'' = p-MeC<sub>6</sub>H<sub>4</sub>, Ar''' = Ph); I (Ar = p-ClC<sub>6</sub>H<sub>4</sub>, Ar' = Ar'' = Ph, Ar''' = p-MeC<sub>6</sub>H<sub>4</sub>); I (Ar = p-ClC<sub>6</sub>H<sub>4</sub>, Ar' = Ar'' = p-MeC<sub>6</sub>H<sub>4</sub>, Ar''' = Ph); I (Ar = p-ClC<sub>6</sub>H<sub>4</sub>, Ar' = Ar'' = p-MeOC<sub>6</sub>H<sub>4</sub>, Ar''' = Ph); I (Ar = p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, Ar' = Ar'' = Ph, Ar''' = p-MeC<sub>6</sub>H<sub>4</sub>); I (Ar = p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, Ar' = Ar'' = p-MeOC<sub>6</sub>H<sub>4</sub>, Ar''' = Ph); I (Ar = p-MeC<sub>6</sub>H<sub>4</sub>, Ar' = Ar'' = Ph, Ar''' = p-MeC<sub>6</sub>H<sub>4</sub>); I (Ar = Ar' = Ar'' = p-MeC<sub>6</sub>H<sub>4</sub>, Ar''' = Ph); I (Ar = p-MeC<sub>6</sub>H<sub>4</sub>, Ar' = Ar'' = MeOC<sub>6</sub>H<sub>4</sub>, Ar''' = Ph); I (Ar =  $\beta$ -C<sub>10</sub>H<sub>7</sub>, Ar' = Ar'' = Ph, Ar''' = p-MeC<sub>6</sub>H<sub>4</sub>); I (Ar =  $\beta$ -C<sub>10</sub>H<sub>7</sub>, Ar' = Ar'' = p-MeOC<sub>6</sub>H<sub>4</sub>, Ar''' = Ph); I (Ar =  $\beta$ -C<sub>10</sub>H<sub>7</sub>, Ar' = Ar'' = p-MeC<sub>6</sub>H<sub>4</sub>, Ar''' = Ph). Furthermore, eight compounds I (Ar' = Ph, Ar'' = p-BrC<sub>6</sub>H<sub>4</sub>) were synthesized with Ar = Ph, Ar''' = p-MeC<sub>6</sub>H<sub>4</sub>; Ar = Ph, Ar''' = p-MeOC<sub>6</sub>H<sub>4</sub>; Ar = p-ClC<sub>6</sub>H<sub>4</sub>, Ar''' = p-MeC<sub>6</sub>H<sub>4</sub>;

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L 29287-66

ACC NR: AP6019327

Ar = p-ClC<sub>6</sub>H<sub>4</sub>, Ar' = p-MeOC<sub>6</sub>H<sub>4</sub>, Ar = p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, Ar' = p-MeOC<sub>6</sub>H<sub>4</sub>, Ar = p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, Ar' = p-MeOC<sub>6</sub>H<sub>4</sub>, Ar = Ar' = p-MeC<sub>6</sub>H<sub>4</sub>, Ar = p-MeC<sub>6</sub>H<sub>4</sub>, Ar' = p-MeOC<sub>6</sub>H<sub>4</sub>. Compounds I were crystalline substances with sharp melting points, except for I (Ar = β-C<sub>10</sub>H<sub>7</sub>, Ar' = Ar'' = Ph, Ar''' = p-MeC<sub>6</sub>H<sub>4</sub>) and I (Ar = p-MeC<sub>6</sub>H<sub>4</sub>, Ar' = Ph, Ar'' = p-BrC<sub>6</sub>H<sub>4</sub>, Ar''' = p-MeOC<sub>6</sub>H<sub>4</sub>), which were vitreous solids. None of the compounds synthesized could be separated into isomers either by fractional crystallization or by chromatography. Orig. art. has: 6 formulas and 1 table. [NPRS]

SUB CODE: 07 / SUBM DATE: 09Jul64 / ORIG REF: 004 / OTH REF: 002

Card 3/3 CC

L 34024-66 EWP(m)/EWP(j) RM  
ACC NR: AP6025537

SOURCE CODE: UR/0079/66/036/001/0157/0159

AUTHOR: Foshchenko, N. G.; Mirsanov, A. V.

ORG: Institute of Organic Chemistry, AN USSR (Institut organicheskoy khimii AN USSR)

TITLE: Reaction of phosphorous acid with iodine and alcohols

SOURCE: Zhurnal obshchey khimii, v. 36, no. 1, 1966, 157-159

TOPIC TAGS: phosphorus acid, iodine, alcohol, iodide, phosphoric acid, reaction mechanism, chemical reaction

ABSTRACT: A detailed study was made of the reaction of alcohols, phosphorus, and iodine, indicating that in contrast to the generally accepted scheme, iodine, phosphorus, and alcohols react in 5:1:5 ratios to form alkyl iodides and phosphoric acid monohydrate. Phosphorous acid reacts with alcohols and iodine in a 1:2:2 ratio to form phosphoric acid monohydrate and alkyl iodides. The latter reaction can be convenient and for preparative purposes. Possible reaction mechanisms are outlined. Orig. art. has: 1 formula and 2 tables. [JPRS: 35,998]

SUB CODE: 07 / SUBM DATE: 22Feb65 / ORIG REF: 003 / OTH REF: 001

Card 1/1 *plu*

UDC: 546.183.547.224  
0.716 09.25

L 31808-66 EWT(m)/EWP(j) RM/WW

ACC NR: AP6021676

SOURCE CODE: UR/0079/66/036/003/0467/0469

AUTHOR: Shevchenko, V. I.; Kukhar', V. P.; Kirsanov, A. V. 29  
38ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR) B

TITLE: Phosphorylation of 2-alkoxypropionitriles 1

SOURCE: Zhurnal obshchey khimii, v. 36, no. 3, 1966, 467-469

TOPIC TAGS: phosphorylation, organic nitrile compound, reaction rate, organic azo compound, reaction mechanism, reaction temperature

ABSTRACT: 2-Alkoxypropionitriles react at 100° with phosphorus pentoxide simultaneously at the alkoxy and nitrile groups, or only at the nitrile group. With increasing molecular weight of the alkyl radical, the reaction rate at the alkoxy group is sharply reduced, while the reaction rate at the nitrile group remains essentially unchanged. 2-Methoxypropionitrile splits off the methoxy group, and trichlorophosphazo-1,1,2,2,3-pentachloropropyl is formed; 2-ethoxypropionitrile gives a mixture of trichlorophosphazo-1,1,2,2,3-pentachloropropyl and trichlorophosphazo-1,1,2,2-tetrachloro-3-ethoxypropyl. 2-Propoxy-, 2-butoxy-, and 2-phenoxypropionitriles react only at the nitrile group, to form trichlorophosphazo-1,1,2,2-tetrachloro-3-alkoxy- and -3-phenoxypropyls, respectively. Trichlorophosphazo-1,1,2,2-tetrachloro-3-

Card 1/2

UDC: 547.491

L 31808-66

ACC NR: AP6021676

propoxy-, -3-butoxy-, and -3-phenoxypropyls and converted to trichlorophosphazo-1,1,2,2,3-pentachloropropyl when heated above 150° at atmospheric pressure or distilled under vacuum (0.1 mm). The alkoxyphosphazo compounds split off the alkyl halide in this case, whereas the phenoxyphosphazo compound does not yield chlorobenzene. [JPRS]

SUB CODE: 07 / SUBM DATE: 15Mar65 / ORIG REF: 002 / OTH REF: 001

L.  
Card 2/2

L 31798-66 ENT(m)/EWP(j) RM

ACC NR: AP6021639

SOURCE CODE: UR/0079/66/036/003/0564/0564

AUTHOR: Peshchenko, H. G.; Kirsanov, A. V.

22  
B

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Method of producing trialkylphosphine oxides directly from the alcohols, red phosphorus, and iodine

SOURCE: Zhurnal obshchey khimii, v. 36, no. 3, 1966, 564

TOPIC NAME: alkylphosphine oxide, iodine, alcohol, chemical synthesis, phosphorus chemical production

ABSTRACT: Trialkylphosphine oxides are produced in 85-90% yields directly from the alcohols, red phosphorus, and iodine without isolating the intermediate alkyl iodides. Trialkylphosphine oxides were produced from hexyl, heptyl, octyl, nonyl, decyl, cetyl, cyclohexyl, and 3,5,5-trimethylheptyl alcohols, as well as from industrial mixtures of C<sub>6</sub>-C<sub>9</sub>, C<sub>9</sub>-C<sub>12</sub>, and other alcohols. [JPMS]

SUB CODE: 07 / SUBM DATE: 14Oct65 / ORIG REF: 001

LS

Card 1/1

UDC: 547.241



L 21761-66 EWT(m) RM

ACC NR: AP6012649

SOURCE CODE: UR/0079/65/035/002/0344/0350

AUTHOR: Zhmurova, I. N.; Drach, B. S.; Kirsanov, A. V.

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Acid chlorides of trichlorophosphazo-trichlorophosphazo-alpha-carboxyalkyls

SOURCE: Zhurnal obshchey khimii, v. 35, no. 2, 1965, 344-350

TOPIC TAGS: amino acid, chlorination, organic phosphorous compound, chloride, phosphorous chloride

ABSTRACT: When two or more moles of phosphorus pentachloride react with  $\alpha$ -aminoacids, acid chlorides of trichlorophosphazo- $\alpha$ -carboxyalkyls are obtained. In most cases the phosphazo-reaction is accompanied by chlorination of the alkyl group of the amino acid, where usually not less than two chlorine atoms are in the alkyl group. The mean values of atomic refractions of nitrogen for acid chlorides of trichlorophosphazo- $\alpha$ -carboxyalkyls and trichlorophosphazoalkyls were calculated. Orig. art. has: 9 formulas and 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 12Dec63 / ORIG REF: 007 / OTH REF: 003

Cord 1/1

UDC: 547.466+546.185'131

L 23269-66 FBD/EWT(1)/EHC(k)-2/T/EMP(k)/EMA(h) IJP(c) WG  
ACC NR: AP6011564 SOURCE CODE: UR/0051/66/020/003/0490/0491  
AUTHOR: Kirsanov, B. P.; Selivanenko, A. S. 47  
ORG: none B  
TITLE: Nonlinear losses in high-intensity laser - 25.14  
SOURCE: Optika i spektroskopiya, v. 20, no. 3, 1966, 490-491  
TOPIC TAGS: laser, nonlinear optics, Raman scattering, two photon absorption  
ABSTRACT: The probability of two-photon absorption ( $W_{12}$ ) due to anti-Stokes Raman scattering of light from a neodymium laser by a hydrogen atom as a result of the  $2s-1s$  transition is calculated. It was established that for this transition  $W_{12}$  is determined practically by one term of the summations in the expression for  $W_{12}$  (a transition involving the  $2p$  level). Therefore, an approximate formula is obtained for the overall probability of a two-photon process using only one term of the summation for  $W_{12}$ . The losses associated with the frequency doubling of the stimulated light due to anti-Stokes scattering within the laser medium are discussed. The gain of the anti-Stokes radiation in the ruby laser (by the stimulated emission generated in the cavity) is calculated. It is shown that frequency doubling by anti-Stokes scattering of stimulated emission within the cavity should be observable in existing high-intensity lasers (i.e., the beam of stimulated emission should contain both the fundamental and the second harmonic). Orig. art. has: 1 formula. [CS]  
SUB CODE: 20/ SUBM DATE: 05Apr65/ ORIG REF: 002/ OTH REF: 002/ ATD PRESS:  
Card 1/1 ULC UDC: 621.375.9:535 4236

LEVCHENKO, Ye.S.; BERZINA, I.N.; KIRSANOV, A.V.

N-acylareniminosulfonyl chlorides and aryl esters. Zhur. org.  
khim. 1 no.7:1251-1255 J1 '65. (MIRA 18:11)

1. Institut organicheskoy khimii AN Ukr.SR.

KHMEI'NITSKAYA, Ye.L., prof., doktor ekon. nauk; VOLKOV, M.Ya.,  
kand. ekon. nauk; BEL'CHUK, A.I., kand. ekon. nauk; IORDANSKAYA,  
E.N., ml. nauchn. sotr.; MENZHINSKIY, Ye.A.; PAVLOVA, M.A.,  
kand. ekon. nauk; VASIL'KOV, N.P., kand. ekon. nauk; ARDAYEV,  
G.B., kand. ekon. nauk; VAL'KOV, V.A., kand. ekon. nauk;  
TIMASHKOVA, O.K., kand. ekon. nauk; ANDREYEV, Yu.K., ml. nauchn.  
sotr.; PUSHKIN, A.A., ml. nauchn. sotr.; MAKSIMOVA, M.M., kand.  
ekon. nauk; KIRSANOV, A.V., kand. ekon. nauk; SHEBANOV, A.N.,  
ml. nauchn. sotr.

[Changes in the economic structure of the countries of Western  
Europe] *Izmeneniya v ekonomicheskoi strukture stran Zapadnoi*  
*Evropy*. Moskva, Nauka, 1965. 433 p. (MIRA 18:9)

1. Akademiya nauk SSSR. Institut mirovoy ekonomiki i mezhdunarodnykh otnosheniy.

SHEVCHENKO, V.I.; TRACH, V.P.; KIRSANOV, A.V.

Isomerization of trialkoxyphosphazo sulfonylaryls. Zhur. ob.  
khim. 35 no.7:1224-1227 J1 '65. (MIRA 18:8)

1. Institut organicheskoy khimii AN UkrSSR.

DERKACH, Grigoriy I'larionovich; ZHIMUROVA, Irina Nikolayevna;  
KIRSANOV, Aleksandr Vasil'yevich; SHEVCHENKO, Veniamin  
Isaakovich; SHCHERBANK, Alla Stanislavovna; POKROVSKAYA,  
Z.S., red. [REDACTED]

[Phosphazo compounds] Fosfazosoyedineniya. Kiev, Naukova  
dumka, 1965. 283 p. (MIRA 18:8)

L 25785-66 ENP(j)/EWI(m)/T IJP(c) RM

ACC NR: AP6015921

SOURCE CODE: UR/0286/65/000/015/0031/0031

INVENTOR: Kirsanov, A. V.; Shevchenko, V. I.; Tkach, V. P.

ORG: none

TITLE: Method for obtaining triallyloxyphosphazenesulfonaryls—Certificate No. 173227, Class C 07f

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 31.

TOPIC TAGS: polymer, organic phosphorus compound, organic sulfur compound, organic nitrogen compound

ABSTRACT: The method for obtaining triallyloxyphosphazenesulfonaryls distinguished by the fact that trichlorophosphazenesulfonaryls are treated with sodium allylate or allyl alcohol in the presence of tertiary bases or by reaction of arenesulfonic acid sodiumchloramide with triallyl phosphite. The use of triallyloxyphosphazenesulfonaryls for the preparation of polymers. [JPRS]

SUB CODE: 07 / SUBM DATE: 27Dec61

Cord: 1/1

UDC: 547.419.1: 07

L 28875-66 EMP(1)/ENT(m) CRM

ACC NR AP6018835

SOURCE CODE: UR/0079/65/035/003/0534/0544

AUTHOR: Shokol, V. A.; Fedotova, L. I.; Frolova, A. N.; Kirzanov, A. V. 3/B

ORG: Institute of Organic Chemistry, AN USSR (Institut organicheskoy khimii AN USSR)

TITLE: Higher dialkyl esters of arylsulfonylamidophosphoric acids

SOURCE: Zhurnal obshchey khimii, v. 35, no. 3, 1965, 534-544

TOPIC TAGS: organic synthetic process, ester, phosphoric acid, organic sulfur compound, organic nitrogen compound, organic salt

ABSTRACT: Dialkyl esters of arylsulfonylamidophosphoric acids with higher alkyl radicals were synthesized and investigated as complex formers and extraction reagents for various metals. Dialkyl esters of arylsulfonylamidophosphoric acids, possessing the properties of monobasic acids, were synthesized by the action of trichlorophosphazenesulfonylaryls on higher aliphatic alcohols or by the action of dichlorides of arylsulfonylamidophosphoric acids on higher sodium alcoholates. The solubility of the sodium salts of higher alkyl esters of arylsulfonylamidophosphoric acids in water decreases, while that in organic solvents increases with increasing molecular weight of the alkyls. Sodium salts of the higher dialkyl esters of arylsulfonylamidophosphoric acids are

Card 1/2

UDC: 546.185.547.541.521.1



L 28875-66

ACC NR: AP6018835

extracted from aqueous solutions by organic solvents. Extraction takes place only from neutral or alkaline solutions. Under the action of sodium salts of higher dialkyl esters of arylsulfonylamidophosphoric acids on metal chlorides, sulfates, or nitrates in aqueous solutions, aluminum, barium, beryllium, ferrous and ferric, cadmium, calcium, magnesium, manganese, copper, nickel, strontium, and chromium salts of higher dialkyl esters of arylsulfonylamidophosphoric acids are produced; they are very sparingly soluble in water and readily soluble in organic solvents. In the synthesis of dialkyl esters of arylsulfonylamidophosphoric acids from tri-chlorophosphazenesulfonylaryls and higher alcohols, higher monoalkyl esters of the arylsulfonylamidophosphoric acids ( $\text{ArSO}_2\text{NHPO}(\text{OH})(\text{OR})$ ) are formed and are isolated in the form of the disodium salts. Orig. art. has: 6 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 18 Jan 64 / ORIG REF: 002

Card 2/2 00

L 25595-66

EWI(m)/EWP(j): NW/RH

ACC NR: AP6016695

SOURCE CODE: UR/0079/65/035/009/1598/1602

AUTHOR: Shevchenko, V. I.; Kornuta, P. P.; Kirsanov, A. V.

ORG: Institute of Organic Chemistry, AN Ukr-SSR (Institut organicheskoy khimii AN Ukr-SSR)

TITLE: Phosphorylation of l-cyanocarboxylic acids

SOURCE: Zhurnal obshchey khimii, v. 35, no. 9, 1965, 1598-1602

TOPIC TAGS: phosphorylation, phosphorus chloride, organic nitrile compound, chlorination, IR spectrum, chloride, organic azo compound

ABSTRACT: The reaction of phosphorus pentachloride with l-cyanocarboxylic acids of the  $AlkCH(CN)COOH$  type was studied in an effort to expand the limits of application of the phosphorylation of nitriles. The direction of the reaction and yield of the final products depend on the quantitative ratio of the reagents and on the volume of the alkyl radical; the reaction direction is dependent to a lesser degree on the temperature. At a 1:1 molar ratio of l-cyanocarboxylic acid and phosphorus pentachloride, the acid chloride is formed readily and rapidly. The acid chlorides formed react with phosphorus pentachloride as typical secondary nitriles, forming a mixture of phosphorylation products and the chlorides of l-chloro-l-cyanocarboxylic acids. At a 1:2 molar ratio of the l-cyanocarboxylic acid and

Cord 1/2

UDC: 546.185+547.468

L 25595-66

ACC NR: AP6016695

phosphorus pentachloride, the phosphorylation products obtained are tri-chlorophosphazo-1-chloro-2-chlorocarboxy-2-alkylvinyls, while at a 1:3 ratio, the phosphorylation products are trichlorophosphazo-1,1,2-trichloro-2-chlorocarboxyalkyls. As the molecular weight of the alkyl radical is increased, the yield of the phosphorylation products is sharply reduced, while the yield of the chlorination products increases (from 15% for 1-cyanopropionic acid to 62% for 1-cyanoisovaleric acid). The introduction of halogen atoms into the methyl group of isobutyronitrile sharply increases the yield of phosphorylation products, from 40% for isobutyronitrile to 80% for 2-chloroisobutyronitrile. The chlorocarboxy group exerts the same influence as the chloromethyl group. Trichlorophosphazo-1-chloro-2-chlorocarboxy-2-methylvinyl was the only unsaturated phosphazo compound isolated in the individual state; the other unsaturated phosphazo compounds were converted without isolation to trichlorophosphazo-1,1,2-trichloro-2-chlorocarboxyalkyls by the action of phosphorus pentachloride. Trichlorophosphazo-1,1,2-trichloro-2-chlorocarboxyalkyls react with acetic acid, forming dichlorides of N-dichlorophosphonylmonoiminoalkyl-chloromalonie acids. The infrared spectra of the reaction products are discussed. / Orig. art. has: 3 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 15Aug64 / ORIG REF: 006

Card 2/2

L 25593-66 ENT(m)/ENP(j) RM

ACC NR: AP6016696

SOURCE CODE: UR/0079/65/035/009/1607/1612

AUTHOR: Ivanova, Zh. M.; Lavchenko, Ye. S.; Kirsanov, A. V.

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Alkoxy- and aroxydihalophosphazosulfonylaryls

SOURCE: Zhurnal obshchey khimii, v. 35, no. 9, 1965, 1607-1612

TOPIC TAGS: ester, phosphoric acid, organic phosphorus compound, chlorinated organic compound, fluorinated organic compound, organic sulfur compound

ABSTRACT: Dichloro- and difluoroalkyl phosphites and dichloro- and difluoro-phenyl phosphites react with dichloro- and difluoro-arenesulfonic acids to form the corresponding alkoxy- and phenoxyhalophosphazosulfonylaryls, which are hydrolyzed according to various schemes, depending on their nature and the reaction conditions. The potassium salts of difluorides of arylsulfonylamido-phosphoric acids react with one mole of sodium methylate to give potassium salts of monofluorides of the monomethyl esters of arylsulfonylamidophosphoric acids, the structure of which is demonstrated by conversion to dimethyl esters of arylsulfonylamidophosphoric acids in the reaction with sodium methylate. Orig. art. has 2 tables. [PPR]

SUB CODE: 07 / SUBM DATE: 09Oct64 / ORIG REF: 006

Card 1/1 f/

UDC: 546.185+547.556.9.A44

L 27767-66 -ENP(1)/ENT(m)/ETC(m)-4/1 IJP(c) RM/WW

ACC NR: AP6018498 SOURCE CODE: UR/0079/65/035/011/1970/1973

AUTHOR: Shevchenko, V. I.; Korotkiy, P. P.; Kirsanov, A. V.

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Phosphorylation of secondary nitriles

SOURCE: Zhurnal obshchey khimii, v. 35, no. 11, 1965, 1970-1973

TOPIC TAGS: phosphorylation, organic nitrile compound, phosphorus chloride, phosphoric acid, amine

ABSTRACT: Isobutyronitrile was used as a model for a detailed study of the reaction of secondary nitriles with phosphorus pentachloride. Secondary nitriles of the  $\text{CH}_2(\text{Alk})\text{CNCN}$  type react with phosphorus pentachloride at  $20^\circ$  to form a mixture of 1-chloronitriles and phosphorylation products. The reaction does not take place at  $0-5^\circ$ . In the presence of excess nitrile, only 1-chloroisobutyronitrile and trichlorophosphazo-1-chloro-2,2-dimethylvinyl are formed; in the presence of excess phosphorus pentachloride, only 1-chloroisobutyronitrile and trichlorophosphazo-1,1,2-trichloro-2-methylvinyl are formed. If the reaction is conducted at  $70^\circ$  or above, only 1-chloroisobutyronitrile is formed. Trichlorophosphazo-1,1,2-trichloroalkyls of the  $\text{CH}_2(\text{Alk})\text{CNCN} \cdot \text{PCl}_3$  type are colorless crystalline or liquid substances, readily soluble in most organic solvents; they are readily decomposed by atmospheric moisture and react vigorously with amines, alcohols, are hydrolyzed by water at  $20^\circ$  with the formation of 1-chloronitriles and phosphoric acid, and decompose at  $150-200^\circ$  into phosphorus pentachloride and 1-chloronitriles. The thermal stability of phosphazo-compounds of this type decreases in the series of  $\text{Alk}(\text{CH}_2)_n\text{CH}_2\text{CN} > \text{CH}_2\text{CN} > \text{C}_2\text{H}_5$ . Orig. art. has: 1 figure and 1 formula. JPRS

SUB CODE: 07 SUBM DATE: 03Aug66 / ORIG REF: 005 / OTH REF: 003

Card 1/1 02 UDOI 347.491

1 27768 66 - EMP(j)/EMI(m) IJP(c) RM/TH

ACC NR: AP6018499

SOURCE CODE: UR/0079/65/035/011/1974/1976

AUTHOR: Ivanova, Zh. M.; Kirsanov, A. V.

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Fluorochloride of phenylphosphonic acid and fluorides of monoamides of phenylphosphonic acid

SOURCE: Zhurnal obshchey khimii, v. 35, no. 11, 1965, 1974-1976

TOPIC TAGS: fluorinated organic compound, phosphorus chloride, primary aromatic amine, secondary amine, organic synthetic process, organic phosphorus compound, ester, chlorinated organic compound

ABSTRACT: The reaction of fluorides of monoesters of phenylphosphonic acid with phosphorus pentachloride results in the formation of the fluorochloride of phenylphosphonic acid, which reacts with primary and secondary amines to give fluorides of monoamides of phenylphosphonic acid. A simpler method was developed for the synthesis of fluorides of monoesters of phenylphosphonic acid, the starting materials for the production of the fluorochloride of phenylphosphonic acid: the dichloride of phenylphosphonic acid is successively treated with alcohol and potassium bifluoride without isolating the chlorides of monoesters of phenylphosphonic acid. Orig. art. has: 4 formulas. [JPRS]

SUB CODE: 07/ SUBM DATE: 09Oct64 / ORIG REF: 003 / OTH REF: 003

Card: 1/1 c.c.

UDC: 547.241



L 27771-66 - EMP(1)/EST(m) RM  
ACC NR: AP6018502

SOURCE CODE: UR/0079/65/035/011/1984/1988

AUTHOR: Fedorova, G. K.; Shaturskiy, Ya. P.; Kirsanov, A. V.

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Derivatives of styryl-2-chlorostyrylphosphinic and bis-phenylacetylenylphosphinic acids

SOURCE: Zhurnal obshchey khimii, vo. 35, no. 11, 1965, 1984-1988

TOPIC TAGS: phosphorylation, ester, phenol, amine, chlorinated organic compound, organic phosphorus compound, hydrolysis, nonmetallic organic derivative

ABSTRACT: Phenylacetylene is phosphorylated by styryltetrachlorophosphorus, forming styryl-2-chlorostyryltrichlorophosphorus. Styryl-2-chlorostyryltrichlorophosphorus is hydrolyzed to the corresponding acid, and reacts with sulfur dioxide to give the chloride of styryl-2-chlorostyrylphosphinic acid. Treatment of styryl-2-chlorostyrylphosphinic and bis-2-chlorostyrylphosphinic acids with alcoholic potassium hydroxide results in the formation of styrylphenylacetylenylphosphinic and bis-phenylacetylenylphosphinic acids. Under the action of phenols and aromatic amines, the chlorides of styryl-2-chlorostyrylphosphinic and bis-phenylacetylenylphosphinic acids are converted to the corresponding esters and amides. Yields, melting points, crystal type, and analytic data are given for all the reaction products. Orig. art. has 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 30 Nov 64 / ORIG REF: 001/

Card 1/1 CC UDC: 546.185;547.341

KIRSANOV B. A.

PA 49747

USSR/Medicine - Flies  
Medicine - Chromosomes

Oct 1947

"Changes in Frequency of Crossing Over in Relation to the Change in Doses of Outer and Inner Factors in the *Drosophila Melanogaster*," B. A. Kirsanov, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 3.

Discusses variations in the process of crossing over when acted upon by: 1) various doses of an outside factor, in this case X-rays; and 2) variations in doses of an internal factor--changing the amount of inversion in nonhomologous chromosomes. Also studied changes in the frequency of fission in special x-chromosomes in relation to various doses of X-rays. Submitted by Academician I. I. Smol'skii, 3 Apr 1947. 40747



KRONGAUZ, A.N.; BRODOVSKIY, N.P.; SHVVKOLOVICH, Yu. V.; KIRSANOV, B.A.

Stand for measuring external gamma irradiation in radioactive preparations. Vest. rent. i rad. 33 no.6:64-69 N-0 '58. (MIRA 12:1)

1. Iz dozimetricheskogo otdela (sav. - dots. A.N. Krongauz) Gosudarstvennogo instituta rentgenologii i radiologii (dir. - dots. I.G. Legunova) Ministerstva zdavookhraneniya RSFSR.

(RADIOLOGY, appar. & instruments

stand for measurement of external gamma rays of isotope-enclosing containers (Rus))

L 10841-66

EWI(1)/EWI(m)/EWP(1)/EWA(c)/ T IJP(c) AT/GS/RM

ACC NR: AT5023436

SOURCE CODE: UR/0000/65/000/000/0110/0113

AUTHOR: Krongauz, V. A., Vasil'yev, I. N., Kireanov, B. P.

ORG: none

TITLE: Investigation of the mechanism of intermolecular energy transfer in organic solutions. Effect of diffusion

SOURCE: Symposium on elementary processes of chemistry of high energies, Moscow, 1963. Elementary processes of the chemistry of high energies; trudy simpoziuma, Moscow, 1965, 110-113

TOPIC TAGS: excited state, particle interaction, molecular interaction, particle collision, luminescence

ABSTRACT: The transfer of excitation energy between benzene and toluene, 2,5-diphenyloxazole, and 2,5-diphenyloxazole and isopropylidiphenyl and cyclohexane was studied. The dependence of the relative intensity (I) of luminescence of a diphenyloxazole solution (0.005 moles/l) in isopropylidiphenylcyclohexane mixture upon the reciprocal viscosity of the solvent is shown in figure 1. For all three systems, the experimentally determined rate constants of energy transfer  $k_{AB}$  are lower than those calculated from the formula

$$k_{AB} = 4\pi D_A N (1 + \frac{r_A}{r_B})$$

Cord 1/2

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000722720006-5

Cord 2/2

KIRSANOV, D.D.

Experience in using reinforced concrete poles in a contact system.  
Transp.stroi.5 no.8:14-15 0 '55. (MLRA 9:1)

1.Zanestitel' nachal'nika 1-go uchastka energosnabzheniya Oktyabr'-  
skoy dorogi.

(Electric lines--Poles)

KIRSANOV, D.N.		PROCESS AND PROPERTIES INDEX									
BC		2-3									
<p>Reaction of aromatic nitro-compounds on magnesium and halides. D. N. KIRSANOV and P. A. SOLOVYEV. <i>Chem. Abstr.</i> 1955, 5, 1487-1488. The reaction products of <math>\text{ArNO}_2 + \text{MgXR}'</math> (I) <math>\rightarrow \text{ONAr} \cdot \text{OMgX}</math> (II); (I) + (II) <math>\rightarrow \text{NRR}' \cdot \text{OMgX}</math> (III) + <math>\text{R}'\text{O} \cdot \text{MgX}</math> (IV); (III) + (IV) <math>\rightarrow \text{RR}' + \text{NRR}' \cdot \text{MgX} + (\text{MgX})_2\text{O}</math>. The final products have been isolated and identified in the cases <math>\text{R} = \text{Ph}</math>, <math>\text{X} = \text{Br}</math>; <math>\text{R} = \text{C}_6\text{H}_5</math>, <math>\text{R}' = \text{Ph}</math>, <math>\text{X} = \text{Br}</math>; <math>\text{R} = \text{Ph}</math>, <math>\text{R}' = \text{p-C}_6\text{H}_4\text{Me}</math>, <math>\text{X} = \text{Br}</math>. R.T.</p>											
ASD 514 METALLURGICAL LITERATURE CLASSIFICATION											
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